



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,239	08/22/2003	Stefan Bertil Ohlsson	2002B117/2	9391

23455 7590 12/29/2006
EXXONMOBIL CHEMICAL COMPANY
5200 BAYWAY DRIVE
P.O. BOX 2149
BAYTOWN, TX 77522-2149

EXAMINER

BRUENJES, CHRISTOPHER P

ART UNIT	PAPER NUMBER
----------	--------------

1772

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/29/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/646,239

Applicant(s)

OHLSSON, STEFAN BERTIL

Examiner

Christopher P. Bruenjes

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 56-111 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 56-111 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

Art Unit: 1772

DETAILED ACTION

WITHDRAWN REJECTIONS

1. The provisional objections to claims 100-103 of record have been withdrawn due to Applicant's amendments in the Paper filed October 9, 2006.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Art Unit: 1772

4. Claims 56-111 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lue et al (USPN 6,255,426) in view of Takahashi et al (EP 982 362 A1) and Wong et al (USPN 6,358,457). Note the rejections of claims 56-111 are repeated below. The rejection is over the three references taken as a whole. None of the references taken separately teach the claimed invention. However, to clarify the rejection in light of the confusion displayed by the arguments presented by applicant, I have rewritten the rejection below.

Regarding claims 74-80, 87-99, 105-108, and 110-111, Lue et al anticipate a multilayer stretch film comprising at least two layers (col.12, 1.17). At least one of the layers comprises a polyethylene copolymer having a CDBI of at least 70%, a melt index of from 0.1 to 15 g/10min, a density of from 0.910 to 0.930 g/ml, a melt index ratio of from 35 to 80, and an Mw/Mn ratio of from 2.5 to 5.5, wherein the film has a dart impact strength D, a modulus M, where M is the arithmetic mean of the machine direction and transverse direction 1% secant moduli, and a relation between D in g/mil and M in psi such that D is greater than or equal to $2.0 \times [100 + e^{(11.71 - 0.000268 \times M + 2.183 \times 10^{-9} \times M^2)}]$, which is equivalent to the formula claimed (see abstract and col.4, 1.48-50 and 1.60). The CDBI is at least 85% (col.9, 1.43). The melt index is from 0.3 to 10 g/10min (col.4, 1.57).

Art Unit: 1772

The film is wrapped around articles when used as garbage and shopping bags or shrink film (col.10, 1.57-59).

Lue et al fail to teach that at least one layer comprises one or more tackifiers. However, Takahashi et al teach that it is well known in the art to add tackifiers or cling additives such as low molecular weight polyisobutylene (PIB) in order to provide the packaging film with cling properties (p.34, 1.51-55 and p.40, 1.54-58). Therefore, one of ordinary skill in the art would have recognized that tackifiers such as PIB are added to at least one of the layers of the stretch film in order to provide the packaging film with cling properties, as taught by Takahashi et al.

Thus, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to add a tackifier or cling agent such as PIB to the stretch film of Lue et al, in order to provide the stretch film with cling properties, as taught by Takahashi et al. Furthermore, with regard to claims 88-89 and 106-107, the tackifier or cling agents are added to the stretch film in an amount not detrimental to the improved film properties with regard to the stretch and wrap ability of the film, as taught by Takahashi et al on page 34, lines 51-55. Therefore, it would have been obvious to one having ordinary skill in the art at the time

Art Unit: 1772

Applicant's invention was made to add the tackifier or cling agent to the layer within the claimed ranges in order to provide the film with cling properties without damaging the improved film properties, as taught by Takahashi et al. Regarding claims 110-111, the film obviously has a cling within the claimed range when PIB is added to at least one of the layers because the range is typical range for cling properties so that the film will properly cling to other objects.

Regarding claims 56-73, 81-86, 100-103, and 109, Lue et al in combination with Wong et al and Takahashi teach all of the limitations as shown above with regard to claims 74-80, 87-99, 104-108, and 110-111. Takahashi et al also teach that it is well known that packaging films are formed from polyethylene copolymers as monolayer films or multilayer films (p.34, 1.28-30). Takahashi et al also teach other layers are added to polyethylene copolymer films in order to provide additional properties, such as making one surface of the film tacky and the other non-tacky. Takahashi et al teach that in order to provide these properties two additional layers are used, one on either side, of the polyethylene copolymer film (p.34, 1.31-39). One of ordinary skill in the art at the time Applicant's invention was made would have recognized that a layer is added on either side of a polyethylene copolymer film used in packaging in order

Art Unit: 1772

to give that film one tacky surface and one non-tacky surface, as taught by Takahashi et al.

Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to form the film of Lue et al having more than one layer, as a three layered film with the polyethylene copolymer forming the intermediate layer, depending on the intended end result of the film, as taught by Takahashi et al.

Lue et al and Takahashi et al combined fail to explicitly teach that the film has a particular natural draw ratio, and tensile stress at separate elongation values. Note the limitation "wherein the film has a natural draw ratio of at least 250%, 275%, or 300%, a tensile stress at the natural draw ratio of at least 22, 24, or 26MPa, and a tensile stress at second yield of at least 12MPa or 14MPa" does not require the film to actually be drawn or stretched, it merely states that the film has these properties. Wong et al teach that the natural stretch ratio is determined by factors such as the polymer composition and morphology caused by the process of forming the film (col.7, 1.4-7). In this case, the film of Lue et al and Takahashi et al has the exact same composition and is made by the same process. Lue et al teach that the film is used

Art Unit: 1772

as a shrink film (col.10, 1.57), which obviously must be stretched in order to allow the film to shrink.

Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made, since the film is formed of the same composition and made by the same process, would obviously have a natural draw ratio of the film of at least 300%, a tensile stress at the natural draw ratio of at least 26MPa, a tensile stress at the second yield of at least 14MPa, a tensile stress at first yield of at least 9MPa, and the film obviously has a yield plateau with a linear portion having a slope of at least 0.020 MPa per %elongation, as taught by Wong et al.

ANSWERS TO APPLICANT'S ARGUMENTS

5. Applicant's arguments regarding the claim objections of record have been considered but are moot since the objections have been withdrawn.

6. Applicant's arguments regarding the 35 U.S.C. 103 rejections of claims 56-111 have been fully considered but they are not persuasive.

In response to Applicant's argument that the films of Lue are not made of the same composition as the claimed invention

Art Unit: 1772

because it is missing a tackifier and therefore it does not possess the same properties as taught by Wong et al. The references in an obvious rejection must be viewed as a whole. The combination of Lue and Takahashi teach the composition claimed including the tackifier added according to the teaching of Takahashi for cling properties. Therefore, when the references are taken as a whole the composition is the same as claimed and therefore must possess the same properties as taught by Wong.

In response to applicant's argument that Lue, Wong, and Takahashi fail to teach the criticality of a tackifier to produce the claimed combination of large natural draw ratio, large tensile stress at second yield and at natural draw ratio, and a positive yield plateau slope large enough to absorb typical variations in film thickness uniformity without tiger striping. Those properties are latent properties of the film having the same composition and used for same purpose as the film of the combination of the references as whole teach. Furthermore, the motivation to combine the tackifier with the stretch film of Lue is a different motivation than the claimed invention, however it is still motivation for making the combination and ultimately arriving at the same invention.

Art Unit: 1772

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher P. Bruenjes whose telephone number is 571-272-1489. The examiner can normally be reached on Monday thru Friday from 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the

Art Unit: 1772

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Christopher P Bruenjes
Examiner
Art Unit 1772

CPB *CPB*
December 22, 2006

Alicia Chevalier
ALICIA CHEVALIER
PRIMARY EXAMINER